

ABSTRACT

A multilayer polyolefin film of the type suitable for packaging application in which heat seals are formed, and in its preparation the multilayer film comprises a flexible substrate layer formed of a crystalline thermoplastic polymer having an interface surface. A heat-sealable surface layer is bonded to the interface surface of the substrate layer and is formed of a syndiotactic propylene polymer effective to produce a heat seal with itself at a sealing temperature of less than 110°C. The surface layer has a thickness which is less than the thickness of the substrate layer. The heat-seal layer can be formed of syndiotactic polypropylene polymerized in the presence of a syndiospecific metallocene catalyst and having a melt flow index of less than 2 grams/10 minutes.

The multilayer film can take the form of a biaxially-oriented film. In the production of the multilayer film incorporating a substrate layer and a heat-sealable surface layer, a crystalline thermoplastic polymer is extruded and formed into a substrate layer film. A second polymer comprising a syndiotactic propylene polymer which is effective to form a heat-sealable surface layer is extruded to form a surface layer that is bonded to the interface of the substrate layer at a temperature within the range of 150-260°C.